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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,733	06/15/2001	Mohan Sankaran	INFO-P016	9185

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EXAMINER	
REAGAN, JAMES A	
ART UNIT	**PAPER NUMBER**
3621	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/882,733	SANKARAN ET AL.	
	Examiner	Art Unit	
	James A. Reagan	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. This action is in response to the RCE and amendment filed on 29 July 2005.

2. Claims 1-4, 8-14, 16-19, 22, 29, and 32-36 have been amended.

3. Claims 1-36 have been examined.

4. The rejections of claims 1-36 have been updated to reflect the amendments to the claim language.

RESPONSE TO ARGUMENTS

5. Applicant's arguments received on 29 July 2005 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morley et al., (US Patent Application Publication No. 200210056081 A1) in view of the Microsoft Computer Dictionary 4th ed. (1999), and further in view of Carey (US 6,078,994 A).

Examiner's Note: The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Claims 1 and 19:

Morley, as shown, discloses:

- *receiving an incoming request for analytic data resident in a mass storage unit on the source computer system* (see at least Abstract; Summary of the Invention; Fig 2; Par. 52)

- *authenticating the incoming request* (see at least Fig 2, Par. 52);
- *spawning a session thread that reads and parses a command received via the incoming request, the command for sending the data to a second computer system* (see at least Fig 2, Par 54-55);
- *a writer thread that reads the encrypted and compressed data block in the third data block buffer and sends the encrypted and compressed data block to the second computer system* (see at least Fig 2, 5-6, associated text).

Morley doesn't specifically disclose:

- *a reader thread that reads data and writes at least a part of the data into a first data block buffer;*
- *a compressor thread that compresses the part of the data in the first data block buffer into a compressed data block and writes the compressed data block to a second data block buffer;*
- *an encryptor thread that encrypts the compressed data block in the second data block buffer into an encrypted and compressed data block and writes the encrypted and compressed data block to a third data block buffer* (see at least the same citations as above);

However, Morley does teach the use of buffer for processing parts of large data to be transmitted such as, for example, how the data needs to be buffered, compressed, then encrypted, prior to being transmitted to a destination on a network (see at least Fig 5-6, 8; associated text; Par. 104). In addition, the Microsoft Computer Dictionary clearly defines the function and application of buffers and buffering circuits well within the accepted industry standard as a component for temporarily storing data before being processed by a forthcoming component. It would have been clearly obvious, therefor, to one ordinarily skilled in the art that these methods would have been intrinsic in Morley's system, so that data may be streamed efficiently, speedily, and securely from a source to a target computer system over a network.

The combination of Morley/ Microsoft Computer Dictionary does not specifically disclose *concurrently executing a plurality of data transformation threads within the session thread.* However, Carey, in at least the background section of the specification discloses that a multi-thread model has been well-known to those within the art. It would have been obvious, therefore, to one of ordinary skill in the at the time of the invention to use the multi-thread model for processes such as encryption, decryption, compression, decompression, reading, and writing because, as Carey clearly discloses in the background, "Multi-threading has several advantages over multi-processing. First, because only one process is spawned, overhead is kept to a minimum. It is true that each thread carries with it some overhead cost, but this cost is negligible when compared with the cost of maintaining an entire process. Because multi-threading significantly reduces system overhead, many more users can be supported. Another advantage of multi-threading is that it minimizes the redundant storage of data. Because all of the threads are part of the same process, all of the threads can share the same memory space. This in turn makes it easier to implement a shared cache. With a shared cache, it is only necessary to store a set of data once. After the data is cached, all of the threads can access it. By reducing redundant storage of data, multi-threading makes more efficient use of system resources."

Claims 11 and 29:

Morley, as shown, discloses:

- *issuing a request for data to a source computer system on which the data resides*, the source computer system executing a second application (see at least Fig 2, 5, associated text);
- *spawning a session thread in response to a message from the source computer system* (see at least Fig 2, 5, associated text);

Morley does not explicitly describe in detail:

- *receiving from the source computer system at least one encrypted and compressed data block of the data, the encrypted and compressed data block transferred over the networked analytic application environment;*
- *writing the encrypted and compressed data block to a first data block buffer;*
- *decrypting the encrypted and compressed data block into a compressed data block that is written to a second data block buffer; and*
- *decompressing the compressed data block in the second data block buffer and writing a resultant data block to a third data block buffer;*

However, Morley does teach the use of buffer for processing parts of large data to be transmitted such as, for example, how the data needs to be buffered, compressed, then encrypted, prior to being transmitted to a destination on a network (see at least Fig 5-6, 8; associated text; Par. 104). In addition, the Microsoft Computer Dictionary clearly defines the function and application of buffers and buffering circuits well within the accepted industry standard as a component for temporarily storing data before being processed by a forthcoming component. It would have been clearly obvious, therefor, to one ordinarily skilled in the art that these methods would have been intrinsic in Morley's system, so that data may be streamed efficiently, speedily, and securely from a source to a target computer system over a network.

The combination of Morley/ Microsoft Computer Dictionary does not specifically disclose *concurrently executing a plurality of data transformation threads within the session thread.* However, Carey, in at least the background section of the specification discloses that a multi-thread model has been well-known to those within the art. It would have been obvious, therefore, to one of ordinary skill in the at the time of the invention to use the multi-thread model for processes such as encryption, decryption, compression, decompression, reading, and writing because, as Carey clearly discloses in the background, "Multi-threading has several advantages over multi-processing. First, because only one process is spawned, overhead is kept to a minimum. It is true that each thread carries with it some overhead cost, but this cost is negligible when compared with the cost of maintaining an entire process. Because multi-threading

significantly reduces system overhead, many more users can be supported. Another advantage of multi-threading is that it minimizes the redundant storage of data. Because all of the threads are part of the same process, all of the threads can share the same memory space. This in turn makes it easier to implement a shared cache. With a shared cache, it is only necessary to store a set of data once. After the data is cached, all of the threads can access it. By reducing redundant storage of data, multi-threading makes more efficient use of system resources."

In addition, see the rejection of claims 1 and 19, above.

Claims 2, 12, 20, and 30:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose *verifying that data transfer to the second computer system is complete.* However, this is an inherent and therefore obvious transmission step in the communication of data over network links, and one of ordinarily skilled in the art would have implemented this feature in Morley's system, to ensure that transmission of the intended date would not be missing any parts at its destination. This is especially important when one is streaming digital movies, as described by Morley.

Claims 3, 13, 21, and 31:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley further discloses *verifying that data transfer to the second computer system is without error* (se at least Par. 23-26).

Claims 4, 14, 22, and 32:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley further discloses that the source computer system and the second computer system are *networked via the Internet* (see at least Par 23-26).

Claims 5, 15, 23, and 33:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose that *data comprises data processed by an analytic application.* However, the data that may be transmitted using Money's system and method may be any type of data and would still be able to stream and be used as taught by Morley. This data is non-functional descriptive material and as such, cannot render non-obvious an invention that would have otherwise been obvious. Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). See MPEP § 2106.

Claims 6 and 24:

Morley discloses all the limitations of claims 1 and 19 as shown above. Morley does not specifically disclose that the *incoming request uses Extensible Markup Language (XML).* However, the Examiner takes **Official Notice** that it is old and well known in the web page and HTML arts that XML is a powerful and popular language used on the Internet for many different applications involving data storage, transmission, and retrieval. It would have been obvious to one ordinarily skilled in the art at the time the invention was made to have chosen this language with Motleys system, in order to provide more flexibility and robustness to the data transmissions within his system.

Claims 7, 16, and 25:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose:

- *translating the command into a plurality of tasks;*
- *storing the tasks in a task table in a given order; and*
- *executing the tasks in order until a task ending the session thread is found;*

However, these methods are inherent and therefore obvious when accepting, processing, and executing commands over a network. Ergo, it would have been obvious to one ordinarily skilled in the art to have use these methods to handle and execute requests from clients for data delivery, so as to take advantage the best protocols available in network communications and operations.

Claims 8, 17, 26, and 34:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose:

- *first data block buffer and the second data block buffer are substantially equal in size and*
- *enough compressed data blocks are accumulated to fill the second data block buffer before the compressor thread writes to a second data block buffer.*

However, buffering data when preparing to process it prior to transmission over a communications network is a long-standing and common method and obvious to one of ordinary skill in the computer hardware arts, since even the latest and most powerful microprocessor technology requires external buffering to complete all computing tasks. Moreover, choosing buffer in standardized, equivalent sizes is obvious, such as, for example, the 256 kByte or 512 kByte L1 and L2 cache used with the prominent Intel Pentium processors. Morley does teach that buffers should be used in his system to make moving data about more rapid and efficient on computer resources (see above citations). Therefore, it would have been obvious for one ordinarily skilled in the art at the time the invention was made to have included these features, again to provide better speed, functionality, and effectiveness for the system's data processing and transmission steps.

Claims 9, 27, and 35:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose:

- a *second data block buffer and the third data block buffer are substantially equal in size; and*
- *enough encrypted and compressed data blocks are accumulated to fill the third data block buffer before the encryptor thread writes to the third data block buffer.*

Money does teach that buffers should be used in his system to make moving data about more rapid and efficient on computer resources (see above citations). In addition, buffering data when preparing to process it prior to transmission over a communications network is a long-standing and common method and obvious to one of ordinary skill in the computer hardware arts, since even the latest and most powerful microprocessor technology requires external buffering to complete all computing tasks. Moreover, choosing buffer in standardized, equivalent sizes is obvious, such as, for example, the 256 kByte or 512 kByte L1 and L2 cache used with the prominent Intel Pentium processors. Therefore, it would have been obvious for one ordinarily skilled in the art at the time the invention was made to have included these features to provide better speed, functionality, and effectiveness for the system's data processing and transmission steps.

Claims 10, 18, 28, and 36:

Morley discloses all the limitations of claims 1, 11, 19, and 29 as shown above. Morley does not specifically disclose:

- *restoring a connection with the second computer system when an ongoing connection is lost; and*
- *resuming transfer of data to the second computer system at the point in the data where the ongoing connection was lost;*

However, the Examiner takes **Official Notice** that it is old and well-known in the computer networking and communications arts to reduce the instances of lost data packets or severed connections, and also ensuring that lost connections will not cause total, catastrophic failures while transmitting large streams of data over a communications network. It would have been obvious for one ordinarily skilled in the art at the time the invention was made to build this feature into a critical application such as Money's - streaming digital movies to theatres - so that only minimal interruptions of data stream would occur should connection loss be encountered.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **James A. Reagan** whose telephone number is **571.272.6710.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **James Trammell** can be reached at **571.272.6712**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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JAR

17 August 2005